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(54) Title: PROPYLENE COPOLYMER COMPOSITIONS HAVING A GOOD LOW-TEMPERATURE IMPACT TOUGHNESS AND A HIGH TRANSPARENCY

(57) Abstract: The present invention relates to a propylene copolymer composition comprising A) a propylene polymer containing from 0 to 10% by weight of olefins other than propylene and B) at least one propylene copolymer containing from 5 to 40% by weight of olefins other than propylene, where the propylene polymer A and the propylene copolymer B are present as separate phases and the propylene copolymer composition has a haze value of \leq 30%, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition temperature of the propylene copolymer composition is \leq -15 °C.

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A. ČLAŠSII IPC 7	FICATION OF SUBJECT MATTER CO8L23/10 CO8L23/1	4 C08L23/16	
According to	International Patent Classification (IPC) or to both national classification	tion and IPC	
B. FIELDS			
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Documentat	ion searched other than minimum documentation to the extent that su	uch documents are included in the fields se	arched
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EPO-In	ternal, PAJ, WPI Data		
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.
х	EP 0 885 926 A (CHISSO CORP) 23 December 1998 (1998-12-23) claim 1 page 20 -page 21; examples 7-10;	table 4	1
Α	WO 01 48034 A (FISCHER DAVID ;WEI (DE); BINGEL CARSTEN (DE); FRAAIJ 5 July 2001 (2001-07-05) cited in the application examples 98-104	SS HORST	1–15
Furt	her documents are listed in the continuation of box C.	Patent family members are listed	in annex.
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mation on patent family members

I lo	nal Application No	
PCT/E	P 03/06043	

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0885926	Α	23-12-1998	JP	3024082 B2	21-03-2000
			JР	10316810 A	02-12-1998
			JP	10316727 A	02-12-1998
			CN	1200382 A	02-12-1998
			DE	69800610 D1	26-04-2001
			DE	69800610 T2	02-08-2001
			EP	0885926 A2	23-12-1998
			TW	400341 B	01-08-2000
			US	6319991 B1	20-11-2001
WO 0148034	A	05-07-2001	DE	19962905 A1	12-07-2001
	•••	73 77 2002	ĀŪ	2511001 A	09-07-2001
			BR	0016723 A	18-02-2003
			CA	2395552 A1	05-07-2001
			CN	1433435 T	30-07-2003
			WO	0148034 A2	05-07-2001
			EΡ	1250365 A2	23-10-2002
			US	2003149199 A1	07-08-2003